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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,801	07/10/2003	Hiroyasu Sato	VX032544	1911

21369 7590 01/25/2008

POSZ LAW GROUP, PLC
12040 SOUTH LAKES DR.
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EXAMINER	
TOOMER, CEPHIA D	

ART UNIT	PAPER NUMBER
1797	

MAIL DATE	DELIVERY MODE
01/25/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/615,801	SATO, HIROYASU	
	Examiner	Art Unit	
	Cephia D. Toomer	1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *4-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *4-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 31, 2007 has been entered.

2. This Office action is in response to the amendment filed October 31, 2007 in which claims 7, 8 and 10 were amended.

3. The rejection of the claims under 35 USC 112, first paragraph is withdrawn in view of Applicant's arguments and the amendment to the claims.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 is rejected because (1) it is not clear how the clusters of fuel, additive and water are reduced by agitating when claim 4 sets forth that the cluster size is reduced by the process mean; and (2) there is no antecedent support in claim 4 for

agitation the fuel, additive and water. Claim 4 sets forth that only the fuel and additive are agitated.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 4-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Voogd (US 3,606,868.

Voogd teaches a process and system for preparing an emulsion of water and gasoline (see abstract). Voogd uses an internal combustion engine wherein the fuel system is adapted to receive an emulsion of water in gasoline to the engine, the system including means for storing gasoline and water, an emulsifying chamber (mixing tank), volume control means connected between the storage means and the emulsifying chamber for delivering to the emulsifying chamber controlled volumes of gasoline and water, means disposed within the emulsifying chamber for emulsifying the water in the gasoline, carburetor means having a fuel chamber in communication with the emulsifying chamber, means for delivering the emulsion from the emulsifying chamber to the carburetor fuel chamber where it accumulates, and means for continuously providing uninterrupted recirculation of a portion of the emulsion accumulated in the carburetor fuel chamber to the emulsifying chamber to prevent the

gasoline and water from separating as they accumulate in the carburetor fuel chamber (see claim 1). Since gasoline and water are immiscible, they would normally maintain a separated condition in the tank, with water on the bottom and gasoline on top (see col. 3, lines 66-69). In use, a mixture of water and gasoline is pumped to the lower portion of the emulsifying tank through inlet port 26. The gasoline and water are drawn upwardly through draft tube 36 into the center of propeller stirrer 30 by the suction created from the rotation of the stirrer 30. As the gasoline and water are continuously pumped into the lower portion of the emulsifying tank, the stirrer 30 discharges the liquid at its periphery, throwing it in an upward direction so as to emulsify the water in the gasoline. The emulsion is thrown toward the deflector 40 to channel the emulsion to the second stirrer 38 which in turn circulates the emulsion upwardly and outwardly toward outlet port 42. The emulsion flows through discharge line 44 into carburetor 28 to mix the emulsion with air in proper proportions in a conventional manner. The resulting fuel charge is drawn into the engine cylinder head through a fuel line 48 leading from the carburetor to the engine. The emulsion in the emulsifying tank and in the carburetor fuel chamber tends to separate upon standing idle. To avoid this problem, a return line 50 connects the lower portion of the carburetor fuel chamber to an inlet port 52 at the bottom of emulsifying tank 29. During operation of the engine, the centrifugal action of the emulsifier sucks the fuel mixture in the lower portion of the carburetor fuel chamber back to the emulsifying tank through return line 50 to continuously recirculate the gasoline and water mixture so that partially separated gasoline and water is not introduced into the engine (see col. 4, lines 25-42). The fuel

pump 16 controls the flow through the emulsifier 55 so that the amount of fuel returned from the carburetor is proportional to the amount of emulsion introduced into the carburetor fuel chamber through line 44 The system is adapted to prevent partially separated gasoline and water from being introduced into the engine when the automobile engine is initially started. The ignition system is adapted to operate the motor prior to starting the automobile engine to re-emulsify the water in the gasoline within the emulsifier and to circulate through return line 50. Other means for continuously maintaining the gasoline and water in its emulsified condition also can be used in conjunction with the system without departing from the scope of his invention, such as, FIG. 2 shows an alternative fuel system 52 including a- conventional gasoline storage tank 54 for storing a mixture of gasoline with dissolved emulsifier, and a separate storage tank 56 for storing deionized water. See Fig 1 and 2; col. 4, lines 54-75. Voogd teaches the limitations of the claims other than the differences that are discussed below.

Voogd does not specifically teach a processing means. However, since Voogd teaches a propeller 30, paddle 38 and carburetor, it would appear that any of these components would perform the processing means. Voogd clearly teaches recirculating and remixing the fuel mixture and this teaching suggests reducing the cluster sizes of the fuel and water.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 571-272-1126. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Cephia D. Toomer/
Primary Examiner
Art Unit 1797

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